

Dynamics of spinscattering and spinflip processes in solids and at semiconductor/metal interfaces

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The focus of our research is the study of the dynamics of the relevant energy and angular momentum transfer between excited electrons and the spin system of magnetic and nonmagnetic solids and interfaces. We use time- and spin-resolved photoemission spectroscopy to study the strength of the different spin-scattering mechanisms a) in itinerant ferromagnets, b) in the band-bending region of a p-doped GaAs(001) surface and c) at the CuPc/Co interface, the latter one representing a model system for the study of spin injection and spin dynamics in organic semiconductors.